

ABSTRACT

An omni direction vehicle with a frame having a round surface about its perimeter with no apparatus mounted on the frame extending beyond the perimeter. Two independent drive wheels located on an axis through the center of the frame are mounted at the same distance from a central vertical axis through the frame. Each wheel is powered independently of the other and can rotate at variable speeds in either direction. The vehicle is capable of movement in any direction by rotating the axis of the drive wheels to a position which is perpendicular to the desired direction of travel. The vehicle can spin about its vertical axis such that the axis of the drive wheels can be oriented at any direction without changing the original footprint of the space that the frame occupies over the ground. Thus, the vehicle requires a zero turning radius and requires only the space it occupies to change its forward orientation.